Records and descriptions of South African Thysanoptera – IV

by

J. C. FAURE.

Nanothrips parviceps spec. nov. (Figs.* 1 — 3).

Female (apterous). Length 0.96 to 1.22 mm. (distended). *Colour*: Body brown, head, antennae, tube and most of legs yellow. Head yellow; antennae: i to vi wholly yellow, vii slightly brownish at apex, viii grey-brown. Thorax uniformly light brown; legs: all coxae and trochanters light brown; middle and hind femora pale yellowish brown in basal half; rest of legs yellow. Abdomen: i — ix like thorax; tube orange yellow, its distal one-sixth brown. All setae greyish-yellow.

Body surface practically free from sculpturing. Head about 1.3 as wide as long, and only about 0.4 as wide as prothorax; sides subparallel, diverging slightly at base. Reticulation at base less well-developed than in *breviceps*. Eyes protruding slightly, coarsely and unevenly facetted. Postoculars about 20μ long, pointed, situated about 8μ from eyes and about 16μ from lateral margin of head. Anteoculars pointed, about 22 — 28μ long.

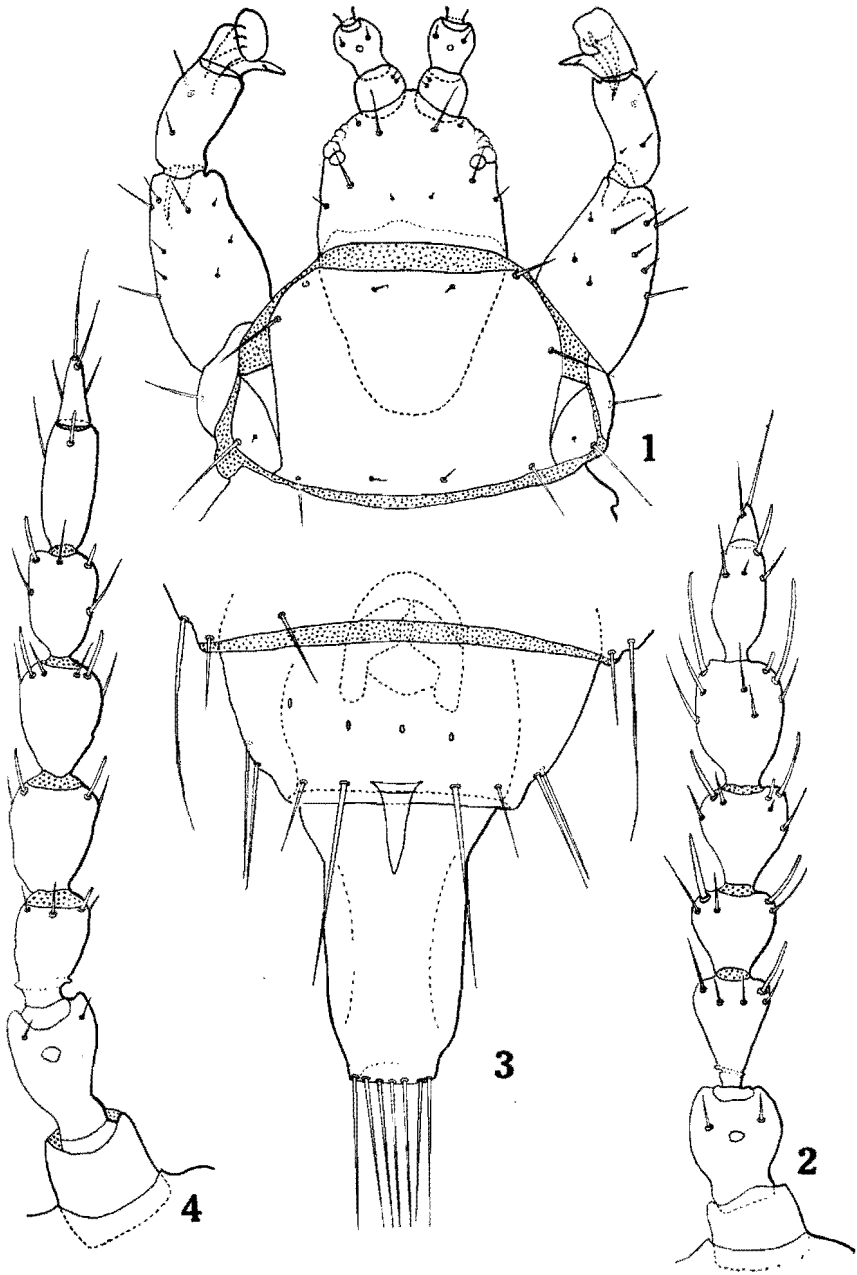
Antennae as illustrated, sense-cone formula as in *breviceps*. Mouth-cone broad and heavy, bluntly rounded, extending about 120μ from dorsal posterior margin of the head. Maxillary palpi about 24μ in length, segment ii about 20μ. Labial palpi minute. Ventral setae of head: a pair between eyes about 22, another near base of labrum about 44μ in length.

Prothorax about twice as wide (including coxae) as long, and about 1.4 as long as the head. Pronotum unsculptured; bristles grey, transparent, finely pointed: anterior marginals and posterior median marginals minute, about 6 — 8μ; coxals and anterior angulars about 20 — 24μ; epimerals 52, midlaterals about 44 — 48, posteromarginals 36μ. Mesonotum with transverse lines of sculpture but not reticulated; one bristle at each posterior angle, pointed, about 20μ long. Metanotum with a pair of median pointed bristles about 22μ long and about 84μ apart. Legs short and stout, fore-femora about 128μ long by 72 wide, fore-tarsal claw about 11 to 20μ long. Coxal intervals of holotype: pro — 138, meso — 192, metathoracic 138μ. Mesosternum rectangular; each antero-lateral angle bears a long, finely pointed seta (about 78μ). Metasternum produced into a

---

* The writer is greatly indebted to his colleague Mr. J. W. C. Geyer for the four camera-lucida figures reproduced in this paper.

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).



Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).

'tooth" between the meso- and metacoxae; a finely pointed seta about 66μ long stands near the tip of each "tooth." These two pairs of setae present in *N. breviceps* also, but only about 25 — 28μ in length.

Abdominal tergites and sternites not reticulated. Tergite i greatly reduced, divided into two sclerites that are each only about 12μ long and about 70μ wide. All spines pointed; angulars on iii to vii increasing in length from about 20 to 72μ; those on viii and ix about 48 and 60μ respectively. A pair of midlaterals near postero-lateral angels of tergites ii to vii increase posteriorly from about 40 to 80μ. Tube heavy, grooved longitudinally, expanded at base, sides slightly concave, suddenly constricted at tip. Terminal setae about 52μ long, finely pointed.

Measurements of holotype (female cleared in NaOH) in mm.:— Length 1.22 (fully distended); head length 0.096, width across eyes 0.108, at base 0.12; prothorax length 0.132, width 0.27, spines: posterior angles 0.052, on coxae 0.02, hind margin 0.036, mid-laterals 0.048, antero-angulars 0.024, on anterior margin 0.006; pterothorax length 0.166, width 0.27; abdomen length 0.8, width 0.3; tube length 0.104, tube setae 0.052, tube width at base 0.066, at apex 0.028; spines on 9th abdominal 0.06, on 8th 0.048. Legs: fore-leg femur length 0.128, width 0.072; tibia length 0.076, width 0.034; tarsus length 0.044, width 0.028, claw 0.02.

Antenna length 0.28 mm.

	i	ii	iii	iv	v	vi	vii	viii
length in μ	32	32	32	30	36	46	36	20
width „ „	32	28	24	28	28	28	18	13

Male (apterous). Smaller than the female but very similar in coloration and structure. Length 0.772 (not distended) to 1.12 mm. Tergite ix of abdomen bears a prominent sharp tooth at the middle of its posterior margin, as illustrated; the length varies from 20 to 32 and the width from 8 to 12μ in the three males before me. One of the males is oedymerous; its fore femora are 232μ long by 100 wide and the tarsal claws measure about 28μ; the prothorax is 184μ long by 340μ wide (including the coxae); the head is 96μ long and 120μ wide at the base.

Measurements of allotype (male cleared in NaOH) in mm.— Length: 0.93 (fully distended); head length 0.08, width across eyes 0.092, at base 0.096, prothorax length 0.12, width 0.24, spines: posterior

---

Nanothrips parviceps spec. nov.

Fig. 1 — Female, holotype, head and prothorax.

Fig. 2 — Female, paratype, right antenna.

Fig. 3 — Male, paratype, end of abdomen, dorsal aspect.

Apterygothrips luteus spec. nov.

Fig. 4 — Female, paratype, right antenna.

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).

angles 0.046, on coxae 0.02, on hind margin 0.026, mid-laterals 0.03, antero-angular 0.016, on anterior margin 0.004; pterothorax length 0.132, width 0.23; abdomen length 0.6, width 0.24, tube length 0.084, tube setae 0.048, tube width at base 0.054, at apex 0.024; spines on 9th abdominal 0.064, on 8th 0.06. Legs: fore-leg femur length 0.12, width 0.064; tibia length 0.064, width 0.032; tarsus length 0.04, width 0.024, claw 0.016.

Antenna length 0.23 mm.

	i	ii	iii	iv	v	vi	vii	viii
length in μ	28	28	28	24	28	36	32	20
width „ „	22	22	20	24	24	24	16	10

Described from three females and three males taken by the writer at Richards Bay, Zululand, 1-vi-1943, in beating dead branches that were still hanging on Acacias and other trees and shrubs.

This species differs from the genotype *N. breviceps* Faure in the following characters, among others:— (i) brown colour of abdomen; (ii) narrower head; (iii) shape and structure of the tube which is heavier, with more or less concave sides; (iv) the pointed prothoracic bristles; (v) the greatly reduced and divided tergite of the first abdominal segment, and (vi) the absence of reticulation on the thorax and abdomen.

Characters (v) and (vi) might be considered of sufficient importance to warrant the erection of a new genus for *parviceps* spec. nov., but it seems preferable to wait with this until more species are discovered.

Nanothrips breviceps Faure.

The following additional specimens of this species have been collected by the writer in beating dead branches of Acacias and other trees and shrubs: Richards Bay, Zululand, 1-vi-1943, one macropterous female; 6-iv-1945 two females, one male (oedymerous), all apterous; near Fanis Island, St. Lucia Lake, Zululand, 5-viii-1945, three females and one male, all apterous.

All four specimens from St. Lucia Lake differ from the holotype and allotype as follows:— (i) the head is distinctly darker, largely light brown, somewhat paler than the prothorax; (ii) the antennae are very slightly darker; (iii) the fore-femora have the brown shading extending nearly to the distal end, and (iv) the head appears to be less rounded in front, with the eyes protruding further.

The three apterous specimens from Richards Bay agree closely with the types in colour, except that the oedymerous male has the head and fore-femora paler than those of the allotype. Its fore-leg measurements are, in μ: femur length 220, width 83, tibia length 83, width 41, tarsus length 41, width 28, tarsal claw 28.

Female (macropterous). Length 1.08 mm. (distended). This form

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).

agrees closely with the apterous holotype in coloration and structure, with the following differences: The eyes scarcely protruding, but distinctly larger and with a larger number of facets; the width of each eye about 8 greater, and the ventral length about 20μ longer. The head is somewhat more prominently rounded between the eyes. The ocelli are conspicuous, the anterior one directed forwards, the posterior pair 40μ apart, the anterior one 24μ from each posterior ocellus.

The fore-wings about 580μ long, about 48 wide at the middle and 52 near the tip; fringe well developed, present on distal half of wing only, cilia about 200μ long near tip; no duplicated cilia; about 130μ from the tip there is an area shaded grey, about 130μ long. Sub-basal wing setae only two on each fore-wing, blunt, length about 12 — 16μ. The wings are slightly narrower in the middle than at the base and tip, but they are not of the *Haplothrips* type. Wing-retaining setae well-developed on tergites iii — vii, about 50 — 55μ, doubly curved. Tube slightly longer and narrower at base than in holotype.

Measurements of macropterous female in mm.:— Length 1.08 (distended); head length 0.096, width across eyes 0.148, at base 0.148, greatest width 0.156; prothorax length 0.112, width 0.26, spines: posterior angles 0.02, on coxae 0.022, hind margin 0.008; midlaterals 0.012, anterior angulars 0.012, on anterior margin 0.008; pterothorax length 0.18, width 0.26, fore-wing length 0.58, width at base 0.04, at middle 0.048; abdomen length 0.66, width 0.24; tube length 0.12, tube setae 0.152, tube width at base 0.056, at apex 0.024. Legs: fore-leg femur length 0.12, width 0.06; tibia length 0.072, width 0.032; tarsus length 0.036, width 0.026, claw 0.008.

Antenna length 0.3 mm.

	i	ii	iii	iv	v	vi	vii	viii
length in μ	28	36	40	40	40	52	28	20
width „ „	24	32	24	28	24	28	16	10

Apterygothrips luteus spec. nov. (Fig. 4)

Female (apterous). Length 1.84 to 1.88 mm. (fully distended). *Colour*: Yellow, only tube and tips of antennae light brown; head, body, legs, and antennal segments i — iv golden yellow, somewhat darker than *A. flavus* Faure; tube light brown except at extreme base; antennal segments vii and viii pale brown, vi very slightly paler, v paler than vi, yellow shaded with light brown. Over black paper: white subepidermal pigmentation in blotches along sides of body.

Body not sculptured. Head 1.6 to 1.8 as long as wide, widest about middle, slightly narrower at base than across eyes, cheeks almost parallel. Eyes: dorsal length 52, ventral 40 — 44, dorsal width 24, dorsal interval about 60μ. Postoculars about 12μ from the eyes, pointed, length about 15 to 40μ.

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).

Antennae as illustrated. Segment iii asymmetrical in all four antennae of the two females before me. Sense cones short and inconspicuous, that on iii very slender and the inner on vi almost rudimentary: iii, 0—1; iv, 1—1; v, 1—1; vi, 1—0(+ 1); vii one on dorsum.

Mouth cone short, broadly rounded, extending about 56μ from the dorsal posterior margin of the head; maxillary palpi about 12μ long, labial palpi minute. Prothorax about 0.6 to 0.8 as long as the head and 1.5 to 1.8 as wide as its own length. Spines all pointed: anterior marginals, midlaterals, coxals and posterior median marginals all minute about 1 — 4μ; anterior angulars 16, epimerals 36 — 48, posterior marginals about 28μ.

Mesonotum and metanotum fused, the suture between them obsolete, both without prominent setae. Legs normal, fore-tarsus with a tooth about 4μ in length. Setae at postero-lateral angles of abdominal segments: length in μ: iv—39, vii—72, viii—66, ix—156. Tube about 0.48 to 0.53 as long as the head, about twice as wide at base as apex, sides converging evenly; terminal setae about 132 — 136μ in length.

Measurements of holotype (female cleared in NaOH) in mm.:— Length 1.88 (fully distended); head length 0.2, width across eyes 0.108, at base 0.1, greatest width 0.11; prothorax length 0.136, width 0.2, pterothorax length 0.22, width 0.18, abdomen length 1.3, width 0.22; tube length 0.96, tube setae 0.132, tube width at base 0.06, at apex 0.028. Legs: fore-leg femur length 0.12, width 0.052; tibia length 0.08, width 0.04; tarsus length 0.04, width 0.028, claw 0.004.

Antenna length 0.29 mm.

	i	ii	iii	iv	v	vi	vii	viii
length in μ	36	40	32	36	36	32	38	24
width „ „	32	28	24	26	24	22	18	12

Two females, taken by the writer on the grass *Aristida junciformis* Trin. et Rupr. near St. Lucia Lake Estuary, Zululand, between the estuary and the sea-shore, on 3 - iv - 1945.

A. luteus spec. nov. resembles *A. flavus* Faure in coloration and general appearance, but differs strikingly from it in (i) the fused meso- and metanotum; (ii) the pointed setae on the prothorax and abdomen and (iii) the asymmetrical 3rd. antennal segment. From the genotype *A. haloxyli* Priesner it differs inter alia in the yellow colour, the shape of the 3rd. antennal segment, and the fusion of the meso- and metanotum. The absence of a suture between the meso- and metanotum may be a character of generic importance, but in other respects the three species discussed in this paragraph resemble one another so closely that they would appear to be well placed in one genus for the present at least.

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).

Prosopothrips longiceps Faure.

Two apterous males of this species were taken by the writer on the grass *Aristida junciformis* Trin. et Rupr. between the estuary and the sea-shore at St. Lucia Estuary, Zululand, on April 3rd., 1945.

They agree closely with the females from Port St. Johns (Publ. Univ. Pret. II: 4, pp. 8 — 11, 1938) in structure and coloration, with the following differences: — Apical narrow portion of sixth antennal segment slightly darker, yellow shaded with light brown. Sternites iii — viii bear sieve-like sense areas, that on iii circular, 9μ in diameter, the other five elliptical, 33μ wide by about 11 long (cephalo-caudad). Segment ix bears a transverse row of fine setae at about posterior fourth of dorsal aspect; these are borne on small tubercles and each seta is about 6μ in length; there are three on the allotype and four on the paratype. A pair of strong pointed setae at postero-lateral angles of ix, and a similar ventral pair near the middle of the lateral aspect of x, are 33μ long. About six very fine setae at apex of x, about 10μ in length. Coxal intervals: pro- 44, meso- 17 and metathoracic 11μ.

Measurements of allotype (male cleared in NaOH) in mm.: — Length 1.04, head length 0.164, width at middle 0.108, width across eyes 0.116, at base 0.096; prothorax length 0.132, width 0.16; mesothorax length 0.076, width 0.15; metathorax length 0.08, width 0.16; abdomen length 0.56, width 0.18. Fore-leg femur length 0.108, width 0.048; tibia length 0.088, width 0.038, tarsus length 0.04, width 0.024.

Antenna length 0.24 mm.

	i	ii	iii	iv	v	vi
length in μ	20	36	36	40	30	68
width „ „	28	28	18	20	20	20

Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2009).